SYSTEMS, METHODS AND COMPUTER PROGRAM PRODUCTS
FOR CONSTRUCTING SAMPLING PLANS FOR ITEMS
THAT ARE MANUFACTURED

Abstract of the Disclosure

A desired Acceptable Quality Limit (AQL), a desired Key Defect Rate (KDR), a desired power of a sampling plan for items that are manufactured and a desired false alarm rate for the sampling plan are input into a computer. The computer calculates a

5 required sample size to provide the desired AQL, the desired KDR, the desired power of the sampling plan for the items that are manufactured and the desired false alarm rate for the sampling plan. Thus, each of the individual parameters may be independently specified based on the items that are manufactured, desired AQLs, KDRs, power and false alarm rates. Reliance on ANSI/ASQ Z1.9 tables which might

10 best fit a user's desired parameters can be reduced and preferably eliminated. In addition to calculating the required sample size, a decision rule critical value also may be calculated based upon the required sample size to provide the desired AQL, the desired KDR, the desired power and the desired false alarm rate for the sampling plan. Following the calculations, a relationship between sample size, acceptable number of

15 defective items and false alarm rate automatically may be graphically displayed based upon the desired AQL, the desired KDR and the desired power of the sampling plan. The items that are manufactured may then be sampled at the required sample size to obtain samples, and the number of defective items in the samples or other response variables in each of the samples, may be measured. After measuring the response

20 variables, such as the number of defective items, the measured response variable for each of the samples is input into the computer and an estimate of the Quality Level (QL) for the items that are manufactured is calculated, based on the measured response variable for each of the samples.